INDIANA LAKE MICHIGAN COASTAL PROGRAM

DNR Indiana Department of Natural Resources

Projects Awarded 2003-2006

2003 Round I – 5 projects

RESEARCH

Purdue University North Central
Diversity, distribution and habitat characteristics of aquatic plant communities in the Indiana Dunes Region
$36,282/$17,610
This project is a detailed assessment of the botanical structure of intradunal ponds of the Indiana Dunes National Lakeshore by mapping species distribution, quantifying diversity, and measuring both physical and chemical parameters. The information produced from this study will benefit long-term monitoring plans of these protected habitats.

HABITAT RESTORATION

IDNR – Division of Nature Preserves
Hoosier Prairie Nature Preserve Priority Wetland Prairie & Associated Savanna Restoration
$50,000/$50,000
This project will restore native wetland prairie and associated upland savanna/prairie at a portion of Hoosier Prairie Nature Preserve. Hoosier Prairie is the largest remaining prairie/savanna complex in Indiana. The goal of this project is to reduce the percentage cover of woody resprouts in the more diverse portions of the Nature Preserve. This entire project area is 72 acres, with 41 acres of it being wetlands and associated uplands. The 41 acres of wetland prairie will receive more intense maintenance and restoration efforts.

City of Hobart
Lake George Aquatic Habitat Improvement Project
$100,000/$100,000
This construction project will result in the restoration of 950 feet of eroded shoreline in Jerry Pavese Park using bioengineering design principles.

LOW COST CONSTRUCTION

City of Michigan City
Karwick Nature Park
$100,000/$100,000
This project will allow for the clean-up, design and creation of a 23.5 acre public nature park with trails and fishing access. Approximately 12 acres of forest will be protected and used as a walking trail only area.

LAND ACQUISITION

Lake County Parks and Recreation Project
Deep River Headwaters Land Acquisition Project
$65,800/$65,847
The project will involve the acquisition of 2 twenty acre parcels of land that border the current 257-acre Deep River Headwaters (DRH) land base. This additional land will provide a wetland refuge at a scale large enough to attract diverse wildlife. Deep River Headwaters is located in the upper reaches of Beaver Dam Ditch which feeds Deep River.

2003 Round II – 11 projects

RESEARCH

Purdue University North Central
Conservation genetics of rare aquatic plants of the coastal zone
$15,568/$7,043
The proposed study will investigate genetic diversity within and among rare aquatic plant populations in the intradunal ponds of the coastal zone region. The major benefits that will result from this project are 1) a better understanding of the correlates of rarity of aquatic plants in intradunal pond ecosystems, 2) identification of imperiled populations and the prioritization of conservation efforts, 3) the establishment of population specific conservation strategies, which may include the maintenance of existing populations having high levels of diversity, the restoration of degraded populations, and the translocation of species to populations having low levels of diversity, 4) an increased likelihood of the persistence of rare populations over time.

Michigan City Parks and Recreation Department
Trail Creek Dune-Riverine Coastal Complex – Archaeological Survey
$5,000/$5,000
Funds will be used to conduct an archaeological study of a known native hunting, habitation, farming and trading site probably used for millenia, named the Trail Creek site. This site is part of an ancient native gathering place for village leaders in the region. A limited area will be examined by advanced archeological methods. The conclusion of this study may suggest that more intensive investigation is justified

PLANNING

Porter County Parks & Recreation Department
Bio-Study of the Paul Zona Wildlife Sanctuary
$2,250/$2,250
Funds will be used to conduct a Bio-Study that will include wildlife, plant and soils study for the 91 acre Paul C. Zona Wildlife Sanctuary. The property is open to the public. The study will provide the Parks Department with some environmental evidence of what property has to offer as well as where to place future trails (identify areas to preserve).

EDUCATION/OUTREACH

Center for Interactive Learning
Vista - Creating a community partnership for coastal water preservation
$50,000/$33,000
The Lake Coastal Vista project proposes to develop a Vista collaborative partnership between Michigan City Schools, Gary Schools, East Porter County Schools, community organizations and the Lake Michigan Coastal Program. The purpose of the Lake Coastal Vista partnership is to: (1) educate students in issues and community initiatives which build an understanding of coastal waters, (2) the role of coastal waters in the economic viability of a community and impact to us as a nation, and (3) to build students' research skills in order to develop and propose viable solutions to the issues at hand.

Save the Dunes Conservation Fund
Indiana Coastal Restoration Action Team
$69,950/$83,950

Save the Dunes Conservation Fund will establish a Coastal Restoration Action Team to coordinate restoration resources in the Lake Michigan coastal region. This partnership between public and private organizations will work to assess restoration needs, and coordinate and provide training on restoration techniques.

City of Michigan City
Breakwater Crib Timbers: Historical Preservation Display
$3,500/$7,085
In the early 1800's, oak timbers were used to create "cribs" in Chicago which were then floated across Lake Michigan to an area near the inlet of Trail Creek in Michigan City, Indiana. The cribs were filled with rocks and sunk into place; a wooden boardwalk finished the top of the East Breakwater, creating a safe harbor for this lakefront community. The intent of the display is to preserve some of the original timbers and the story behind the East Breakwater for the education of future generations.

LOW COST CONSTRUCTION

City of Gary
Stabilization and restoration of historic Gary Union Station and luggage storage buildings
$100,000/$100,000
The Historic Gary Union Train Station was constructed in 1910 by U.S. Steel as a present to the City of Gary and operated as a passenger rail station serving Gary and the surrounding region until the 1950s. The Station buildings and property were deeded to the City of Gary in 1994 in a state of serious disrepair. Gary Union Station is listed on the 10 most endangered building list published by the Historic Landmarks Foundation of Indiana. This funding will be used to repair the windows and doors.

HABITAT RESTORATION

IDNR – Division of Nature Preserves
Clark and Pine Dune and Swale East Wetland Restoration
$25,000/$25,000
The project is a restoration of the globally rare dune and swale natural community, including habitat for numerous state listed plant and animals species. The project involves the removal of invasive non-native and native woody species from a portion of the Clark and Pine East Dune and Swale property, owned by the Division of Nature Preserves.

Town of Michiana Shores / LaPorte County Drainage Board
Restoration of a portion of the White Ditch channel and banks in the Town of Michiana Shores, Indiana
$60,296/$60,296
Funds are requested to restore approximately 1250 feet of the White Ditch (Millstream) stream channel and and banks within the Town of Michiana Shores. Restoration will include four main tasks: 1) clearing debris, sediment and secondary growth from the channel; 2) reducing the slope of the now near-vertical banks to a lower, stable slope; 3) stabilizing the newly contoured banks with deep-rooted native grasses; and, 4) creating a walking path along the south side of the stream on the restored bank.

LAND ACQUISITION

Portage Department of Parks and Recreation/Portage Parks Foundation
Salt Creek Acquisition – Brennan Property
$100,000/$100,000
The propsed property is a 129.7 acre section of the Salt Creek Corridor that runs through the City of Portage from the south to the north. This corridor will become a natural greenway crossing the city from south to north and will connect to pedestrian trails that travel east to west.

Lake County Parks & Recreation Department
Chase St. Savanna & Wetland Land Acquisition
$100,000/$100,000
The Chase Street Savanna located north and south of the Oak Savanna Trail (old EJ&E Railroad ROW) and east of Chase Street in Merrillville is 84 acres of quality oak savanna and wetlands.

Porter County Parks & Recreation Department
Land Acquisition adjacent to Sunset Hill Farm County Park
$49,500/$79,500
The Parks Department will purchase fee-simple, a 3 ¼ acre property at 35 East 700 North in Valparaiso, Indiana. The property is contiguous to their 20ft. easement to the park. The property will be protected as additional greenspace for the park and possible future woodland restoration, as well as improved public access.

2004 – 12 projects

RESEARCH

University of Michigan
Fish spawning and nursery areas in harbors and river mouths with and assessment of spawning and nursery habitat in near shore Lake Michigan using mapping techniques
$100,000/$67,000
This project will identify spawning and nursery areas in river mouths and connecting water bodies to the Indiana Lake Michigan shoreline and document which native species are utilizing these reproductive habitats.

Purdue University Calumet
Demonstration of oak-savanna restoration in a disturbed Lake Michigan sand dune
$38,832/$25,888
The purpose of this project is to conduct an experimental study for oak savanna restoration and to demonstrate the experiment to the public. The restoration site is an abandoned sand mine site in the Indiana Dunes National Lakeshore.

PLANNING

Gary Sanitary District
Marquette Park Lagoons Restoration Assessment and Non Point Source Public Outreach Project
$100,000/$66,667
This project will conduct water sampling of the east and middle Marquette Park Lagoons; conduct an inventory of the septic systems of homeowners on the north bank of the east lagoon, and increase education and outreach activity by partnering with existing community agencies and organizations.

LaPorte County Park Board
Joint Management Plan for Sebert County Park and Wintergreen Woods
$4,392/$2,164
The LaPorte County Park Board will partner with the LaPorte County Park Foundation and the LaPorte County Conservation Trust to develop a master plan for two properties adjacent to one another, and owned by each group. Wintergreen Woods is a dedicated nature preserve, with a conservation easement held by DNR Division of Nature Preserves and Sebert Park is managed by the LaPorte County Park Department.

City of Michigan City

Michigan City Hansen Park Reconstruction Study
$24,000/$16,000
Hansen Park is a public park located on the east side of Michigan City, adjacent to Trail Creek. There is no public access from this park to Trail Creek. This project intends to complete a study of the area, produce a conceptual drawing, and produce engineering designs for public access to Trail Creek. The goal is to reconfigure the existing underutilized park in order to support access to the Creek.

EDUCATION/OUTREACH

Coffee Creek Watershed Conservancy
Coffee Creek Watershed Project
$68,837/$46,264
This project will involve the hiring of a watershed coordinator to help implement the Coffee Creek Watershed Management Plan. The watershed coordinator will produce numerous deliverables: GIS coverage of 150 ft. riparian zone, watershed property owner inventory, riparian zone attribute inventory, surface and subsurface drain inventory, forested land tracts with owner inventory, Hoosier Riverwatch monitoring data, QAPP for sampling drains and database for results, database of farmers using conservation tillage as well as other Farm Bill programs, produce a web page, newsletters, field days, database of BMPs and corresponding brochure for public use, forest conservation brochure and committee will also be developed. This person will serve as an educator to land owners and share data with stakeholders within the watershed.

LOW COST CONSTRUCTION

City of Michigan City
Michigan City 8th St. and Dickson St. Trail Creek Public Access
$100,000/$100,000
This project is designed to create an access point to Trail Creek that is owned by the Michigan City Sanitary District. The 4.79 acres of creek frontage at the site will be kept natural. A conceptual plan and drawings will be completed and then path construction, boardwalks and fishing sites that will be next to Trail Creek.

HABITAT RESTORATION

Indiana University Northwest
Little Calumet River Prairie and Wetlands
$15,131/$24,406
This project focuses on 10 acres along the south dike of the Little Calumet River between Broadway and Harrison in Gary, Indiana. Currently the ACOE has constructed 89 acres of wetlands in this area of the dike. This project will work towards the goal of creating a high quality prairie and wetland complex by reducing invasive species, planting the drainage swale wetland (4 acres) with suitable native plant species, and raking and seeding the prairie portion (6 acres).

City of Hobart
Lake George Aquatic Habitat Improvement Project
$35,000/$35,000
This project will stabilize 550 feet of eroded shoreline at Jerry Pavese Park by the construction of a bioengineered lakeshore.

LAND ACQUISITION

Town of Michiana Shores
Preservation of Greenspace and Establishment of a Public Access Nature Trail/Park within Michiana Shores

$14,652/$14,653
This project will acquire 12 vacant lots adjacent to White Ditch within the Town of Michiana Shores. These lots in conjunction with land presently owned by the Town will form the basis of a future walking trail/park in the next phase of a public access Park development.

City of Michigan City
Michigan City Greenway Project
$75,000/$75,000
This project is the fee-simple purchase of a two-acre parcel that will be used as a connector for the Michigan City Greenways Project.
***could not accept their award due to a significant physical change to the property that was to be purchased with these funds**

Projects Awarded in 2005

Seven projects were awarded for the 2005 Funding Cycle of Coastal Grants Program for a total Federal request of $285,213 while providing $285,392 in local match. All projects received final approval from NOAA in August 2005 and are in the beginning stages of project implementation.

HABITAT RESTORATION

Lake County Parks and Recreation Department - $49,850 / $50,000
Oak Ridge Prairie County Park-Site enhancement and native plant project

Oak Ridge Prairie is owned and managed by the Lake County Parks and Recreation Department and consists of a variety of native and restored ecological areas. A portion of the park is overrun with invasive vegetation, primarily Eurasian buckthorn, and threatens the adjacent high quality savanna. A total of 66 acres will be restored by aggressively removing the woody exotics.

City of Hobart, Indiana -$100,000 / $100,000
Fred Rose Park Shoreline Natural Area Restoration and Stabilization

Fred Rose Park is located along the shoreline of Lake George in an urbanized area of Hobart. The shoreline in Fred Rose Park was identified in the Turkey Creek/Deep River Watershed Management Plan as a priority concern. Therefore, this project will restore a native community to an eroding embankment using bioengineering methods. A total of 700 feet of embankment will be stabilized and restored using pre-planted coconut fiber logs with turf reinforcement and shrub plantings shoreward of the fiber logs. The fiber logs will be planted with native emergent vegetation. An additional 1,300 feet of embankment will receive more vigorous treatment. The project will also result in the removal of 506 tons of sediment, improving water quality and fish habitat.

Fred Rose Park in Hobart

Town of Munster Board of Parks and Recreation - $37,950/ $37,950

Heritage Park Oak Woodland Restoration

Heritage Park is an 11-acre wooded property located on an old dune ridge in Munster, Indiana. A tree health and vegetation survey was complete in 2004 and found that the property was suffering from lack of fire and invaded by invasive plant species. Restoration of this site will consist of removal and stump herbicide treatment of non-native tree species, shrub and herbaceous species and reintroduction of native plants species for a black oak sand savanna community. Education of the natural history of the dune ridge is also integral to this project.

DNR – Division of Nature Preserves - $25,000/ $25,000
Clark and Pine East Dune and Swale Restoration

The Clark and Pine East Dune and Swale project is a restoration of 30 acres of a globally rare dune and swale natural community, which also includes habitat for numerous state listed plant and animal species. The project involves the removal of invasive non-native and native woody species from a portion of the Clark and Pine East Dune and Swale property, owned by the Division of Nature Preserves. The approach will use a combination of mechanical and hand clearing methods, as well as herbicide use and follow-up herbicide treatment as needed.

Town of Merrillville Department of Parks and Recreation - $100,000 / $100,000
Pruzin Park Habitat Restoration and Education

Pruzin Park is a 22-acre public park located on the northern end of Merrillville, Indiana. The area is one of the most densely populated neighborhoods of the Town. The overall goal of this project is to redevelop the existing underutilized park into active facility with a variety of programs focused on environmental and ecological restoration and education. The project will also aim to create a high quality prairie and wetland complex by reducing non-native plant species, stabilizing drainage areas, and planting native wetland and prairie species in 10 acres of the park. This goal will be met by completing a study of the area, produce a conceptual drawing for the project and produce engineering designs.

EDUCATION/OUTREACH

Save the Dunes Conservation Fund - $17,413 / $17,442.39
Improving Capacity for Land Management Planning

As the need to balance Lake Michigan coastal lands protection with development is increasingly being recognized by the public and elected officials in Northwest Indiana, communities that adopt conservation goals and land holdings for conservation continue to expand. To ensure that conservation goals are implemented and the expansion of protected lands effectively contributes to natural resource protection, it is imperative that entities newly pursuing land conservation (including land acquisition, management, and monitoring) have the capacity and resources necessary for such activities. Save the Dunes Conservation Fund will work with other land holding entities throughout the region to investigate land conservation planning needs and

practices in the area, develop an umbrella planning template with varying levels of complexity to share with other entities to help build capacity, and demonstrate components of the template by developing land management plans for four SDCF properties in Indiana's Lake Michigan Coastal Program area.
First workshop held on March 3, 2006 at the Barker House in Michigan City

Save the Dunes Conservation Fund - $5,000 / $5,000
Eliminating Off-Road Vehicle Damage to Natural Areas
Off Road Vehicles (ORVs) cause significant damage to natural areas in the Lake Michigan Coastal area. Uncontrolled access to public and private lands is increasing, almost all land managers are experiencing natural areas degradation from inappropriate ORV use. Damage from continued ORV use threatens to undermine existing restoration and preservation efforts. A one day workshop will convene, various stakeholders identified and invited, to discuss mitigatation measures for degraded natural areas and develop public outreach tools to convey the interests, concerns and measures to eliminate any degradation of natural areas due to ORV use.

2006 Projects – Approved and awaiting Start

LAND ACQUISITION

Applicant: DNR – Division of Nature Preserves
Project Title: Hobart Heritage Prairie
Project Type: Natural Area Preservation
Federal Request: $65,000 **Local Share: $65,000**

Hobart Heritage Prairie is considered the ecological heart of a 115 acre corridor of wildlands south of Ridge Road and is the key connection to 100 acres on the north side, which includes the 20 acre Liverpool State Nature Preserve. In addition, the parcel is close to areas protected by the Indiana Dunes National Lakeshore (the 280 acre Hobart Prairie Grove) and the Indiana Department of Natural Resources (McCloskey Savanna State Nature Preserve.)

The native plants on this prairie give it a quality rating which is higher than 99.5% of the land in the Chicago region. There are 152 native plant species growing on the Hobart Heritage Prairie. Among the rare plants are New Jersey tea, ragged fringed orchid, ladies-tresses orchid, smooth blue aster, Sullivant's milkweed, tall green milkweed, rose gentian, purple milkweed, and marsh wild timothy. Downy gentian, prairie gray sedge, and veiny pea are on Indiana's threatened list. The many wetlands in the Hobart Heritage Prairie provide habitat for the northern leopard frog. The moist soil and small ponds are also important to the blue-spotted salamander, Both of these species are of special concern in Indiana.

The land has two elementary schools, one middle school, and one high school as neighbors, providing a wonderful environmental education opportunity.Purchase of this property will secure this oppportunity.

Lake County Parks and Recreation Department
Project Title: CSX Land Acquisition
Project Type: Natural Area Preservation
Federal Request: $150,000 **Local Share: $150,000**

The CSX Land Acquisition Project involves the fee simple purchase of approximately 91 acres to be added to the 700 acre Oak Ridge Prairie County Park. This acquisition has been a high priority for our department during the last 20 years. This acquisition would add remnant oak savanna, wetland and prairie to buffer the southwest corner of the park. In addition to the habitat potential, this property will provide a linkage for three bike trails which will improve the non-motorized transportation network in our county.

Lake County Parks has made attempts in the past to acquire this land, but matching funds were hard to secure during negotiations. We now are confident that certain grant funding sources like the Indiana Lake Michigan Coastal Grant Program can make this acquisition a reality. We have support for this project from a possible Transportation Enhancement Grant, Indiana DNR-Nature Preserve Division, and The Nature Conservancy.

This site botanically has great potential. The area is made up of abandoned agricultural areas, an abandoned road bed, remnant oak savanna, prairie, and wetland. The sites sandy soils are sure to hold a diverse seed bank which will compliment the native plants already present. The Natural Land Institute performed a botanical survey in 1996, and six species of state listed species were observed on this 91 acre property. This acquisition is critical for the future potential of the Oak Ridge Prairie-Hoosier Prairie Corridor.

LOW COST CONSTRUCTION

Portage Parks Department
Project Title: Little Calumet Prairie River Public Access and Restoration Area
Project Type: Natural Area Restoration / Recreational Improvement
Federal Request: $100,000 **Local Share: $332,649**

Grant funds will be used to restore six acres of the Little Calumet River Public Access and Restoration Area property. The Portage Parks Foundation is donating the land to the Portage Parks Department to provide the required match and to allow for restoration and future management. The project entails floodplain forest enhancement, developing a trail system for nature appreciation and to gain angler and canoe access to the Little Calumet River, creating a lesson plan for high school students, and preparing a property management plan.

The restoration component includes removal of undesirable trees, shrubs and herbaceous species through cutting and herbicide applications. Target invasive species are Phragmites, garlic mustard and boxelder. Native floodplain forest species will be planted at a rate of 150 seedlings per acre along with seeding native understory plants. Wetlands will be enhanced by breaking drainage tiles and removing sediment from an oxbow. 1,300 feet of wood chip trail will be constructed and interpretive signage will be installed along the trail. Approximately 300 feet of trail will need to be constructed across national lakeshore property to link this property to the Little Calumet River. The Portage Parks Department has the support of the National Lakeshore; any trail construction across the national lakeshore property will be borne by the parks department and the Northwest Indiana Steelheaders. A handicap accessible parking lot will be constructed next to Ameriplex Drive to provide access to the property.
The management plan will guide parks staff in vegetation management and future monitoring.

City of East Chicago, IN
Project Title: East Chicago Beach Restoration Project
Project Type: Natural Area Restoration
Federal Request: $50,000 **Local Share: $50,000**

The City of East Chicago proposes a Beach Front Restoration Project in the amount of $100,000. This project is in the Low Cost Construction/Natural Area Restoration category. The project site is a 1,000 foot stretch of city owned property along the East Chicago beach front.

The proposed Natural Area Restoration encompasses clearing away invasive species, installing native plantings, and constructing a boardwalk and ramp in accordance with ADA regulations. Remaining funds will be used to subsidize the construction of an observation deck that will also be handicapped accessible. The boardwalk will be approximately 100' long and 8' feet wide. The observation deck at the end of the boardwalk will contain educational kiosks and displays.

DNR – Division of Nature Preserves
Project Title: Hoosier Prairie Block 11 and Gaylord Butterfly Tract Buckthorn Removal

Project Type: Natural Area Restoration
Federal Request: $33,750 **Local Share: $33,750**

The Hoosier Prairie Block 11 and Gaylord Tract Buckthorn Removal project is a restoration of a portion of the Hoosier Prairie Nature Preserve. Hoosier Prairie is the largest remaining prairie/savanna complex in Indiana, and is a National Natural Landmark. A previous Coastal Grant restored much of the central portion of the preserve, and a current Coastal Grant is in progress to restore the southeastern blocks. This project will be to control Glossy Buckthorn, Frangula alnus, in two large tracts of the preserve. Block 11 is located in the southwestern portion of the preserve and the Gaylord Tract is located on the northeastern portion. Both areas have received fire and some mechanical removal of buckthorn in the past, but a severe density and cover of buckthorn remains. The goal of this project is to reduce the cover of this species by 90% on approximately 55 acres.

The outcome of this project will include a significant reduction in both cover of Glossy Buckthorn and removal of seed source. The overall outcome is an area of unique prairie/savanna habitat that is largely free of this exotic species allowing native plant species to thrive.

DNR – Division of Nature Preserves
Project Title: Hoosier Prairie Nature Preserve, Savanna & Wetland Restoration
Project Type: Natural Area Restoration
Federal Request: $20,000 **Local Share: $20,000**

The purpose of this proposed project is to restore native savanna and a small amount of wetland prairie at a portion of Hoosier Prairie Nature Preserve in Lake County, Indiana. Hoosier Prairie was acquired by the State of Indiana in the 1970s as the largest remaining prairie/savanna complex in Indiana. It is a National Natural Landmark. Recent studies of the Indiana coastal region have reconfirmed the natural significance of the site. The preserve contains diverse natural communities, including savanna and priority wetlands, especially wet prairie. It also contains many endangered and threatened species.

The overall goal of the project is to reduce the percentage cover of woody resprouts in the more diverse portions of Hoosier Prairie Nature Preserve. Specifically, the area of focus is management blocks 3 & 4. Within these blocks, we will focus on the highest priority savanna and wetlands which encompasses approximately 16 acres. The objective is to reduce and/or kill 90% of woody resprouts of cherry, sassafras, sumac, aspen, cottonwood, and invasives bush honeysuckle and glossy buckthorn. In addition, the project will include an objective to reduce and/or kill 50% of oak resprouts.

DNR – Division of Nature Preserves
Project Title: Clark and Pine East Phragmites Control
Project Type: Natural Area Restoration
Federal Request: $12,500 **Local Share: $12,500**

The Indiana Department of Natural Resources (INDNR), Division of Nature Preserves is interested in the active management and restoration of Clark and Pine East, located in Lake County, Indiana. This property is approximately 258 acres and it contains a mixture of globally rare dune and swale topography, sand-mined areas, two ponds and several hundred feet of frontage on the Grand Calumet River. Clark and Pine East provides habitat for numerous state listed plant and animal species and consists of sand savanna, sand prairie, wet prairie, sedge meadow, emergent marsh, and shrub swamp plant communities.

The goal of this project is to significantly reduce the presence of Phragmites australis at Clark and Pine East. Numerous invasive plant species occur on the property. Several of these species are aggressive and are capable of drastically altering the plant community in which they are found This project will include the treatment of such vegetation through foliar broadcast spray and wick herbicide application. This restoration project involves approximately 30 acres at the Clark and Pine East property and it will target the area around the ponds up to the Grand Calumet River. The project objective is to reduce the presence of Phragmites australis by 90% within the treatment area. The restoration of this area will

improve the overall biodiversity and habitat potential for the site and reduce the spread Phragmites australis to other portions of the property.

Applicant: City of Michigan City, IN
Project Title: Pullman Forest
Project Type: Natural Area Restoration
Federal Request: $14,802.50 Local Share: $16,696.50

The location of this project is a 2-acre field at the base of the large NIPSCO water-cooling tower along U.S. 12 in Michigan City across the street from Pullman Park at the corner of Willard Avenue and 4th Street. This area was once a junkyard and was a joint venture remediation project between Michigan City and LaPorte County. This project received the IACT cooperation award from the state for displaying extraordinary cooperation between municipalities and government agencies.

Concerns with this 2-acre field is the exposure of the NIPSCO cooling tower along a major route into downtown Michigan City and the general lack of forested areas within the immediate downtown area. The objective of this project is to return this 2-acre field back into a white pine, red oak, and red maple forest based from the Forest Cover Type 20 as recognized by the Society of American Foresters.

The major large tree species for this project will include 70 White Pine (Pinus strobus), 42 Red Oak (Quercus rubra), and 28 Red Maple (Acer rubrum). Each of the major tree species will be a 2-inch diameter tree. Additional large tree species will be planted by hand as 1-2 year old seedlings and will include 1,000 Pignut Hickory (Carya glabra), 3,226 Shagbark hickory (Carya ovata), and 1,000 American Beech (Fagus grandifolia). Shrubs and vines will be planted by seed and will include witch-hazel (Hamamelis virginiana), Dwarf Bush-honeysuckle (Diervilla lonicera), mountain-laurel (Kalmia latifolia), and Virginia creeper (Parthenocissus quinquefolia).

Town of Dune Acres, IN
Project Title: Restoration of Dune Acres Natural Areas
Project Type: Natural Area Restoration
Federal Request: $3,000 Local Share: $3,000

This proposal outlines a program for eradicating invasive, non-native plant species from the natural areas of the town of Dune Acres. Dune Acres is situated on the shore of Lake Michigan, and abuts the Indiana Dunes National Lakeshore on the south and west. Of the town's 1310 acres, approximately 270 acres are designated as "Town Parks" which are undeveloped natural areas including high dunes, pannes, oak savannas, and wetlands. These natural areas contain a large number of important and, in some cases, rare plant species. However, they also harbor increasing numbers of invasive, non-native species which not only threaten to crowd out native species within these town parks, but also threaten to become seed sources for the dissemination of non-native species into adjacent National Lakeshore lands. This project aims to eliminate non-native species from 16.5 acres of Dune Acres town parks through an aggressive program of eradication, utilizing cutting, pulling and herbiciding the non-native species. The project also includes planting prairie seeds in the Lupine Lane Park.

Key targets for this program include: Oriental bittersweet, Tartarian honeysuckle, Autumn olive, barberry, multiflora rose, reed canary grass and garlic mustard. The effectiveness of the intervention will be documented by regularly monitoring of invasive plant species, pre-and post-treatment photographs, and monitoring the type and number of native species. The program will also include a series of educational activities, including guided tours of the target areas, articles in the town newspaper, and presentations to town residents. The program will be managed by a professional botanist with additional assistance from volunteers from the community.

Jerry Ross Elementary School, Crown Point, IN
Project Title: Jerry Ross Elementary Natural Habitat Restoration Project
Project Type: Recreational Improvement
Federal Request: $9,700 **Local Share: $9,800**

Jerry Ross Elementary School is proposing to develop a Natural Habitat Restoration Area within the school's Outdoor Learning Center in the school's courtyard. The proposed project includes various learning stations to support the school's inquiry-based science curriculum. The proposed project seeks $9,700 in Lake Michigan Coastal Management Program funding to create learning stations identified as:

(1) A constructed wetland featuring native emergent , pre-emergent, and sedge meadow plants (800 sf);

(2) An excavated pond that will support aquatic life and recirculate water through the wetland (700 sf); and,

(3) A prairie meadow habitat with native wildflowers and plants (1,000 sf).

The proposed Natural Habitiat Restoration Area will promote "hands on" science instruction on water quality, water quality protection, watershed management, and demonstrate the role wetlands play in protecting water quality. Jerry Ross Elementary School, which is a member school of the Crown Point Community School Corporation serving Lake County's Winfield and Center Townships, provides science instruction for students in kindergarten through sixth grade.

The applicant is seeking a 12-month grant project period. The proposed project start date is August 1, 2006. Project activities are scheduled to be accomplished by July 31, 2007.

City of Michigan City, IN
Project Title: Restoration on Trail Creek at Springland Ave,
Project Type: Natural Area Restoration
Federal Request: $38,400 **Local Share: $38,400**

On Trail Creek:

Michigan City will partner with Rivertenders, Northwest Indiana Steelheaders and the St. Joseph River Valley Flyfishermen to restore streambank on an area of Trail Creek (a salmonid trubutary to Lake Michigan) by relocating fallen trees along a river bank erroded area and cover with glacier stone. They will install 80' of lunker structures to simulate undercut banks. George Palmeter river restoration techniques will be used along entire project. This project will increase creek flow, eliminate erosion, create fish habitat, and teach and instruct students about river restoration. Ultimately 3,960 ft. of bank in Trail Creek will be restored. The area is located along Michigan City's Karwick Nature Park. The Nature Park is being developed for fishing access and passive recreation.

Student in-stream classroom projects:

Conduct four, day-long hands-on stream restoration projects with Valparaiso University Biology Club under the direction of Professor of Biology Grayson Davis.

Town of Porter, IN Redevelopment Commission
Project Title: Orchard Pedestrian Bridge
Project Type: Recreational Improvement
Federal Request: $100,000 **Local Share: $100,000**

The Orchard Pedestrian Bridge and elevated pathway is the result of several years of planning the Orchard Pedestrian way, which is an active project under design funded by a federal grant CMAQ (Congestion Mitigation Air Quality). The pedestrian way is to enhance and improve air quality by installing a walkway along Waverly Road. The proposed project will connect the north and south walkway by installing a bridge across the Little Calumet River. Having been a goal of the Town of Porter since 2003, this is the perfect opportunity to finally move the project from the planning phase to design and construction phase.

The Town of Porter Parks and Recreation Department owns the parcel south of the Little Calumet River, and Indiana Department of Transportation owns the parcel north of the Little Calumet River. The project will have the following objectives: 1) bicycle/pedestrian Path 2) bird watching Area 3) Nature Walking Trail 4) access to the Lake Michigan tributary – Little Calumet River 5) connect a major project across the Little Calumet River. The project goals are: 1) clean-up of air emissions 2) recreational opportunity, trail, bicycle, and bird watching 3) connection between north and south Orchard Pedestrian Way 4) provide access to a major river feeding Lake Michigan 5) enhance access to 19 acre Hawthorn Community Park (Community hall, Baseball field, Shelter, Playground…etc.) 6) enhance access to fishing the Chinook Salmon run in early fall, and steelhead trout fishing in mid-summer in the Little Calumet River.

EDUCATION AND OUTREACH

Save the Dunes Conservation Fund
Project Title: Indiana Coastal Restoration Action Team – Training, Working, Outreach (ICRAT-TWO)
Project Type: Natural Area Management Training
Federal Request: $64,500 **Local Share: $64,500**

Save the Dunes Conservation Fund, a 501(c)(3) organization, will address the need for natural area management training by coordinating training for the purpose of controlling invasive plants. Innovative training concepts as well as traditional training will be offered through an Education/Outreach §306 project titled, Indiana Coastal Restoration Action Team-Training, Working, Outreach (ICRAT-TWO.) Natural area management training is a priority of the Coastal Advisory Board for 2006.

It will build upon the Indiana Coastal Restoration Action Team (ICRAT) Project CZ 0314. The ICRAT project will meet or exceed its measurable outcomes. To date, 24 field trainings and 13 training workshops have been held with participation from 208 various people. Of this total, 14% attended two events, 5% attended three, and 7% attended four or more. Fifteen (15) people have become CORE registered herbicide technicians. Twenty-one (21) became red carded from the 130/190 fire training and initially were offered a job on a wildfire taking place in another state. The training resulted in 6 enhanced positions in the private sector, 3 enhanced positions in the public sector, one hiring and one potential hiring. Others have been contacted for participation in fires throughout the country.

This partnership among public and private organizations will further collaboration among land managers and will work with the partnerships created in the ICRAT project, such as the Northwest Indiana Invasive Plant Network (NIIPN.) Save the Dunes Conservation Fund has been funded by Chicago Wilderness to work with our NIIPN partners to identify data and recommend management strategies relating to restoration efforts in Porter and LaPorte counties. This will further strengthen our partnerships among land managers and regional stakeholders.

The partnerships created will further enable the action team that was established outside of the ICRAT project. The goal of this collaborative team effort is to work together on restoration projects within the coastal area on a revolving basis.

Valparaiso University
Project Title: Learning to keep the coastline rivers healthy in theory and practice
Project Type: Comprehensive Education / Outreach
Federal Request: $8,590 **Local Share: $11,792**

The Valparaiso University Biology Department has a history (9 years) of providing a Biology Department Colloquium (alternate weeks during the academic year, occasionally concerning local environmental issues) and, through its Biology Club, of performing twice-yearly Stream Restorations (6 years) with our volunteer labor and with direction and supplies from Rivertenders, an organization dedicated to wise river management. While open to all, these colloquia and projects have been little

advertised to the general public, and are therefore poorly attended by them. We seek funds to focus both the colloquium and the restorations upon our coastal watershed. Local residents and students could thereby be given theoretical and practical training in coastal management. First, we propose to increase the local impact of colloquia by focusing their content for one academic year upon practical approaches to environmental problems associated with our coastal rivers and by hosting one presentation from a nationally-recognized speaker on a similar topic of local import. The audience will learn much about the theoretical basis of maintaining a healthy coastal watershed and meet speakers and other attendees who actively participate in its management. Upcoming Biology Club stream restoration dates will be advertised.

Furthermore, the contact data for the local speakers, attendees and their organizations will be collected into a community address base for advance publicity. Second, we will purchase supplies and a trailer with a small wet lab to make our river monitoring and restoration efforts sustainable. We will work with Rivertenders and NWI Steelheaders by participating in their restoration efforts in Trail Creek. The local address base will be used to invite more participants. Each restoration will include discussion and demonstration of chemical and biological monitoring as well as an explanation of the fundamental methodology and goals of river restoration.

Purdue University North Central
Project Title: Workshop on enhancing wetland education through GIS applications
Project Type: Natural Area Management Training
Federal Request: $7,710 **Local Share: $7,710**

The funding request is to support a multi-agency Geographical Information (GIS) Workshop for the development of wetland education at Purdue University, North Central campus. Landscape-level GIS mapping for natural resource planning is becoming a common tool in most local, state, and federal agencies and the private sector. Much GIS information is being transferred among government organizations. Teachers and interpreters can learn how to use these tools to create and interpret maps for classroom and in-field studies. Students can learn from teachers the basic methods of GIS mapping, which can increase their technical skills required for future employment and higher education. Scientists from USGS National Wetlands Research Center will provide the technical support and implement the workshop. Particpants attending the workshop will be trained (Train the Trainers) to develop subsequent workshops at other sites in Northwest Indiana.

The intended audience for the 3-day workshop includes teachers, non-formal educators, and resource managers in Northwest Indiana. The objectives are: 1) focus on hands-one education and materials to demonstrate land-use changes, as they apply to wetlands and uplands, in Northwest Indiana and 2) provide training in the use of the "WETMAAP" (Wetland Education Through Maps and Aerial Photography) website (www.wetmaap.org) developed by the USGS National Wetlands Research Center. The total cost for the workshop is $63,420. USGS will provide $47,000 of services, which is the majority of the funding to implement the workshop.